WRITTEN ANSWERS TO STARRED AND UNSTARRED QUESTIONS SET FOR MONDAY, THE 30TH APRIL, 2007*

Use of Non-Conventional energy sources for electrification

*381. SHRI BALAVANT *ALIAS* BAL APTE:
SHRI SHREEGOPAL VYAS:

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

(a) whether Government have launched certain schemes/programmes under the non-conventional energy sources to provide energy derived from wind, sun and bio-gas to rural areas of the country;

(b) if so, the details thereof;

(c) the number of villages electrified through solar and bio-gas energy during the last two years; till date, State-wise; and

(d) the steps taken by Government to promote NCES in the country particularly in remote rural villages?

THE MINISTER OF STATE OF THE MINISTRY OF NEW AND RENEWABLE ENERGY (SHRI VILAS MUTTEMWAR): (a) The Ministry's 10th Plan (2002-07) schemes/programmes for the promotion of new and renewable energy are being continued during the 11th Plan (2007-12) until such time as they are superseded by fresh schemes based on the 11th Plan approved outlays. The existing schemes cover, among other things, deployment of solar, wind and biogas systems/devices across the country, including rural areas.

(b) The schemes/programmes essentially provide for subsidy for deployment, details of which are provided Statement-I (*See* below). Specifically, under the Remote Village Electrification programme, upto 90 per cent subsidy on the specified cost of systems/devices, subject to certain ceilings is provided for electrification/lighting of remote villages/ hamlets that will not receive grid-connectivity under the Rajiv Gandhi Grameen Vidutikaran Yojana.

(c) State-wise details of villages/hamlets provided with solar electricity/ lighting systems during the last two years, i.e., 2005-06 and 2006-07 are

* The Sitting of the Rajya Sabha on Monday, the 30th April, 2007 was cancelled. Answers to questions put down in the List for that day were laid on the Table of the House on Thursday, the 3rd May, 2007.

given in Statement-II (*See* below). No village has been provided with biogas based electricity.

(d) To promote new and renewable energy in the country fiscal and financial incentives are being provided that include capital/interest subsidy, accelerated depreciation, concessional duties and relief from income-tax on profits made from sale of renewable power, apart from preferential tariffs for grid-interactive power being given in most potential states. These apart, publicity and awareness on the usefulness of renewable energy systems/ devices are being created through print, postal and electronic media besides organization of special events like the Rajiv Gandhi Akshay Urja Diwas. In addition, District-level Advisory Committees have been constituted in states to facilitate promotion and effective coordination of renewable energy schemes/programmes.

Statement-I

Details of subsidy provided under various renewable energy schemes/ programmes

I. Grid-interactive power programme

	Special Category States (NE Region, Sikkim, J&K, HP & Uttaranchal)	Other States
1	2	3
Small Hydro Projects	Rs. 2.25 crore x (C)^0.646	Rs. 1.50 crore x (C)^0.646
Biomass Power Projects	Rs. 25 lakh x (C)^0.646	Rs. 20 lakh x (C)^0.646
Bagasse Co-generation projects by private sector		
40 bar & above	Rs. 18 lakh x (C)^0.646	Rs. 15 lakh x (C)^0.646
Bagasse Co-generation projects by cooperative/public/joint sector		
40 bar & above 60 bar & above	Rs. 40 lakh/MW Rs. 50 lakh/MW	Rs. 40 lakh/MW Rs. 50 lakh/MW

1	2	3
80 bar & above	Rs. 60 lakh/MW (maximum support Rs. 8.0 crore per project)	Rs. 60 lakh/MW (maximum support Rs. 8.0 crore per project)
Biomass Power using Advanced Technologies	Rs. 1.2 crore x (C)^0.646	Rs. 1.0 crore x (C)^0.646
Wind Power projects	Rs. 3.00 crore x (C)^0.646	Rs. 2.50 crore x (C)^0.646

C—Capacity of the project in MW; ^: raised to the power

**For new sugar mills (which are yet to start production and sugar mills employing backpressure route/seasonal/incidental cogeneration) subsidies shall be one-half of the level mentioned above.*

II. Off-grid renewable energy programmes:

Sl. No.	Programmes/Sector	Subsidy
1	2	3
1.	**Small aero-generators and hybrid systems**	90% of ex-works cost of Rs. 2.40 lakh/kW, whichever is less, in unelectrified islands.
		75% of ex-works cost of Rs. 2.00 lakh/kW, whichever is less, in other areas, for government community use.
		50% of ex-works cost of Rs. 1.25 lakh/kW, whichever is less, for all other users.
2.	**Family Type biogas plants** NE Region States including Sikkim (except plain areas of Assam)	Rs. 11,700 for cum.
	Plain areas of Assam	Rs. 9,000 1 cum.
	J&K, Himachal Pradesh, Uttaranchal (excluding terai region), Nilgiris of Tamil Nadu, Sadar Kursoong and Kalimkpong sub-divisions of Darjeeling, Sunderbans, A&N Islands	Rs. 4,500 (limited to Rs. 3,500/- for 1 cum. dome type plant)

1	2	3
	Scheduled Caste, Scheduled Tribe desert districts, small and marginal farmers, landless labourers, terai region of Uttaranchal, Western Ghats and other notified hilly areas.	Rs. 3,500 (limited to Rs. 2,800/- for 1 cum. dome type plant)
	All Others	Rs. 2,700 (limited to Rs. 2,100/- for 1 cum. fixed dome type plant)
3(i).	**Biomass Gasifiers for rural areas**	Rs. 1.50 lakh/100 kWe-for thermal and electro-mechanical applications (with dual fuel engine) Rs. 15.00 lakh/100 kWe-for power generation upto 1MW (with 100% producer gas engine)
		20% higher subsidy for Special Category States & Islands
(ii)	**Biomass gasifier for industrial applications**	Rs. 2.00 lakh/300 KWe for thermal applications Rs. 2.50 lakh/100 KWe for dual fuel engine Rs. 10.00 lakh/100 KWe with 100% producer gas engine Rs. 15.00 lakh/100 KWe with 100% producer gas engine in institutions
4.	**Industrial Waste-to-Energy projects**	Rs. 50.00 lakh to Rs. 1.00 crore/MWe, depending on technology. (20% higher subsidy for Special Category States)
5.	**Solar Photovoltaic (SPV)** SPV lanterns	Rs. 2,400 for NE and special areas; nil for other
	SPV home lighting systems	Rs. 4,500 to 8,600 for NE and special areas, and Rs. 2,500 to 4,800 for general areas, depending on model
	SPV street lighting systems	Rs. 17,300 for NE and special areas Rs. 9,600 for general areas
	SPV standalone power plant of capacity >1kW$_p$	Rs. 2,25,000/kW for NE and special areas Rs. 1,25,000/kW$_p$ for general areas
	SPV standalone power plant of capacity >10kW	Rs. 2,70,000/kW$_p$ for NE and special areas Rs. 1,50,000/kW$_p$ for general areas
6.	**Solar Photovoltaic (SPV) applications in Urban Areas:**	
	SPV streetlight control systems	25% of cost subject to a max. of Rs. 5,000/-

1	2	3
	SPV street/public garden lights (74/75 W_p modules)	50% of cost subject to a max. of Rs. 10,000/- & Rs. 12,000/- for 11 W and 18 W CFL respectively
	SPV illuminated hoardings (with maximum 1kW$_p$ SPV module)	50% cost subject to a max. of Rs. 15,000/ 100 W_p module
	SPV roads studs	50% of cost subject to a maximum Rs. 1,000/-
	SPV blinkers (minimum 37 W_p module)	50% of cost subject to a maximum Rs. 7,500/-
	SPV traffic signals (minimum 500 W_p module)	50% of cost subject to a maximum Rs.2.5 lakh
	SPV power packs (maximum 1 kW$_p$ module)	50% of cost subject to a maximum Rs. 1.00 lakh perkW$_p$
7.	**SPV water pumping systems**	Rs. 30/W_p of SPV array used, subject to a maximum of Rs. 50,000 per system.
8.	**Solar Water Heating Systems (SWHS)/other Solar Thermal systems**	Solar Water Heating Systems: Subsidized Loan @2% to domestic users, 3% to institutions and 5% to community users plus Rs. 100/ square meter of collector area as incentive to motivator. olar Air Heating/Steam Generating Systems: Capital subsidy @50% of the cost subject to certain ceilings. Dish/community type solar cookers: 50% of cost limited to Rs. 2,500 for dish type cookers and Rs. 25,000 for Scheffler/ community type cooker.
9.	**Akshay Urja Shops**	Subsidized loan @7% upto Rs. 10 lakh and performance based grant & incentive up to Rs. 10,000 per month.
III.	Remote Village Electrification Programme:	
1.	**Remote Village Electrification**	90% of the specified costs of electricity generation systems subject to the following ceilings:
	—	Rs. 18,000 per household for distributed generation system, and
	—	Rs. 12,500 per household for SPV home-lighting systems.

Statement-II

State-wise details of remote villages/hamlets provided with solar electricity/lighting systems during the last two years, i.e., 2005-06 and 2006-07

Sl. No.	State/Union Territory	Remote villages/hamlets with solar electricity/lighting systems during last 2 years, *i.e.*, 2005-06 and 2006-07	
		Sanctioned	Completed
1.	Arunachal Pradesh	128	20
2.	Assam	462	0
3.	Chhattisgarh	43	0
4.	Gujarat	36	0
5.	Jharkhand	332	110
6.	Manipur	54	28
7.	Meghalaya	70	1
8.	Mizoram	0	20
9.	Tripura	0	205
10.	Uttaranchal	103	164
11.	West Bengal	5	184
12.	Jammu & Kashmir	0	27
13.	Madhya Pradesh	150	30
14.	Maharashtra	255	110
15.	Rajasthan	303	129
16.	Karnataka	20	0
17.	Orissa	187	0
18.	Nagaland	3	0
19.	Haryana	149	45
20.	Sikkim	0	13
	TOTAL	**2300**	**1086**